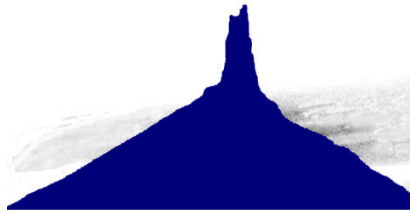


Appendix I



NORTH PLATTE

Natural Resources District

P.O. Box 36 Gering, NE 69341

Phone: 308-436-7111

Fax: 308-436-2452

September 5, 2002

Mr. Roger Patterson, Director
Nebraska Department of Natural Resources
P.O. Box 94676
Lincoln, NE 68509-4676

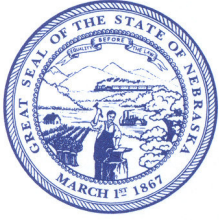
Dear Mr. Patterson:

Studies performed by the North Platte Natural Resources District and others indicate that the ground water and surface water within the North Platte River Basin are hydrologically connected. This has implications for protection of the ground water resource, surface water flows in the river and its tributaries, and the future administration of programs such as the Platte River Cooperative Agreement for Endangered Species. We believe it would be in the public interest to establish an integrated management area to manage these waters. Therefore, the North Platte Natural Resources District hereby requests that the affected appropriators, the affected surface water sponsors, and the Department of Natural Resources consult with our District and that studies and a hearing be held on the preparation of a joint action plan for the integrated management of hydrologically connected ground water and surface water. This request is made under the Nebraska Ground Water Management and Protection Act, section 46-656.28.

Sincerely

James Olson, Chairman

STATE OF NEBRASKA



Mike Johanns
Governor

DEPARTMENT OF NATURAL RESOURCES
Roger K. Patterson
Director

IN REPLY REFER TO:

November 1, 2002

Jim Olson
North Platte Natural Resources District
P.O. Box 36
Gering, NE 69341

Dear Mr. Olson:

This letter is to notify your district that in accordance with the requirements of subsection (2) of Section 46-656.28, R.R.S., 1998, I have made a preliminary determination in response to your written request dated September 5, 2002 for use of the joint process authorized by that section of the Nebraska statutes. That preliminary determination is that there is reason to believe that the use of hydrologically connected ground water and surface water resources in the North Platte Natural Resources District is contributing to or is in the reasonably foreseeable future likely to contribute to conflicts between ground-water users and surface-water appropriators.

In order to make this preliminary determination Department staff reviewed the records of the Department, including reports generated by experts during the course of the Nebraska v. Wyoming litigation; the district's ground-water management plan, rules and regulations, and ground-water monitoring records; the Department's "Hydrographic Reports" and USGS "Water Resources Data – Nebraska" showing stream flow and canal diversions; the Department's "Biennial Reports" showing surface water appropriations; and the ground water well registrations data. Other resources reviewed include the following: "Selected Field and Analytical Methods and Analytical Results in the Dutch Flats Area, Western Nebraska, 1995-99, Open File Report 00-413; "Surface-Water/Ground-Water Interaction and Implications for Ground-Water Sustainability in the Dutch Flats Area, Western Nebraska, USGS Fact Sheet 074-01; "Use of Environmental Tracers and Isotopes to Evaluate Sources of Water, Nitrate, and Uranium in an Irrigated Alluvial Valley, Nebraska", USGS Fact Sheet 100-01; "Vertical Profiles of Streambed Hydraulic Conductivity Determined Using Slug Tests in Central and Western Nebraska", Water Resources Investigations Report 01-4212.

Uranium in an Irrigated Alluvial Valley, Nebraska”, USGS Fact Sheet 100-01; “Vertical Profiles of Streambed Hydraulic Conductivity Determined Using Slug Tests in Central and Western Nebraska”, Water Resources Investigations Report 01-4212.

The following findings were determined from the above resources:

1. Water Resources Investigations Report 01-4212 tested streambed conductivities at three sites in the North Platte NRD and at 7 other sites in the Platte River Basin. The study concluded that all the main stem and tributary streambed sites situated on the flood plain of the main stem contained no restrictive materials. Therefore, the interactions between the stream and aquifer at these sites are not restricted by streambed materials with low conductivities.
2. Open-File Report 00-413, Fact Sheet 074-01, and Fact Sheet 100-01 all discuss the same study sites, which are located in Scotts Bluff and Sioux Counties. The focus of these studies was the ground-water and surface-water sources and their interactions. From Fact Sheet 100-01: “Groundwater in the area was found to be generally less than 30 years old, with an average age of 8.8 years and the ground-water was derived from the North Platte River by either river channel recharge or as recharge from surface-water irrigation.” From Fact Sheet 074-01: “The continued recharge of surface water to the aquifer during the irrigation season sustains ground-water levels in the aquifer and sustains springs that supply base flow to perennial streams in the study area.... Seasonal infiltration of surface-water from canal seepage raises ground-water levels about 10 feet above seasonal low water levels near the canals and locally dilutes nitrate concentrations in ground-water near the canals and their laterals. However, away from the canals, ground-water level rises are not as pronounced.” All of these studies contain evidence to support the premise that ground-water and surface-water in the study area are hydrologically connected.
3. Monitoring wells reported by the USGS on their online database show ground-water declines in some wells in the district. (Figures 1 & 2)
4. The Department’s database on water well registrations show that the number of new irrigation water wells constructed annually within the North Platte NRD hit a peak in 1975 then declined until 1990 when another peak was reached and construction has been declining since 1990. However, new wells are still being completed. As of October 22, 2002, 42 new irrigation wells have been registered and completed in the district for the calendar year 2002. 216 total new depletive wells have been registered and completed in the district in the same time period. (Figures 3 & 4) While the number of ground-water wells has been growing, analysis of stream discharge shows declines in the annual flows of Pumpkin Creek and Bayard Creek. (Figures 5, 6, 7 & 8)
5. The North Platte NRD created a ground-water management sub-area on March 21, 2002, in the Pumpkin Creek Basin. This was done for several reasons, one being the decline of ground-water levels in 15 of the 17 monitoring wells in the sub-area over a 10-year period. The district had also received numerous complaints about the lack of irrigation water from ground-water irrigators, and complaints of insufficient stream flow from surface-water irrigators with water

Jim Olson
November 1, 2002
Page 3

rights on Pumpkin Creek. The district also cited the policy memorandum released by the Department of Natural Resources declaring an informal moratorium on new appropriations on Pumpkin Creek since 1979 as a reason for creating the sub-area. One of the purposes of the sub-area is to provide integrated management of hydrologically connected ground-water and surface-water.

The above findings support a preliminary determination that there is reason to believe that the use of hydrologically connected ground-water and surface-water resources is contributing to or is in the reasonably foreseeable future likely to contribute to a conflict between ground-water users and surface-water appropriators. Accordingly, Jennifer Schellpeper is authorized to work with the district to conduct studies to determine the extent and precise cause of the conflict.

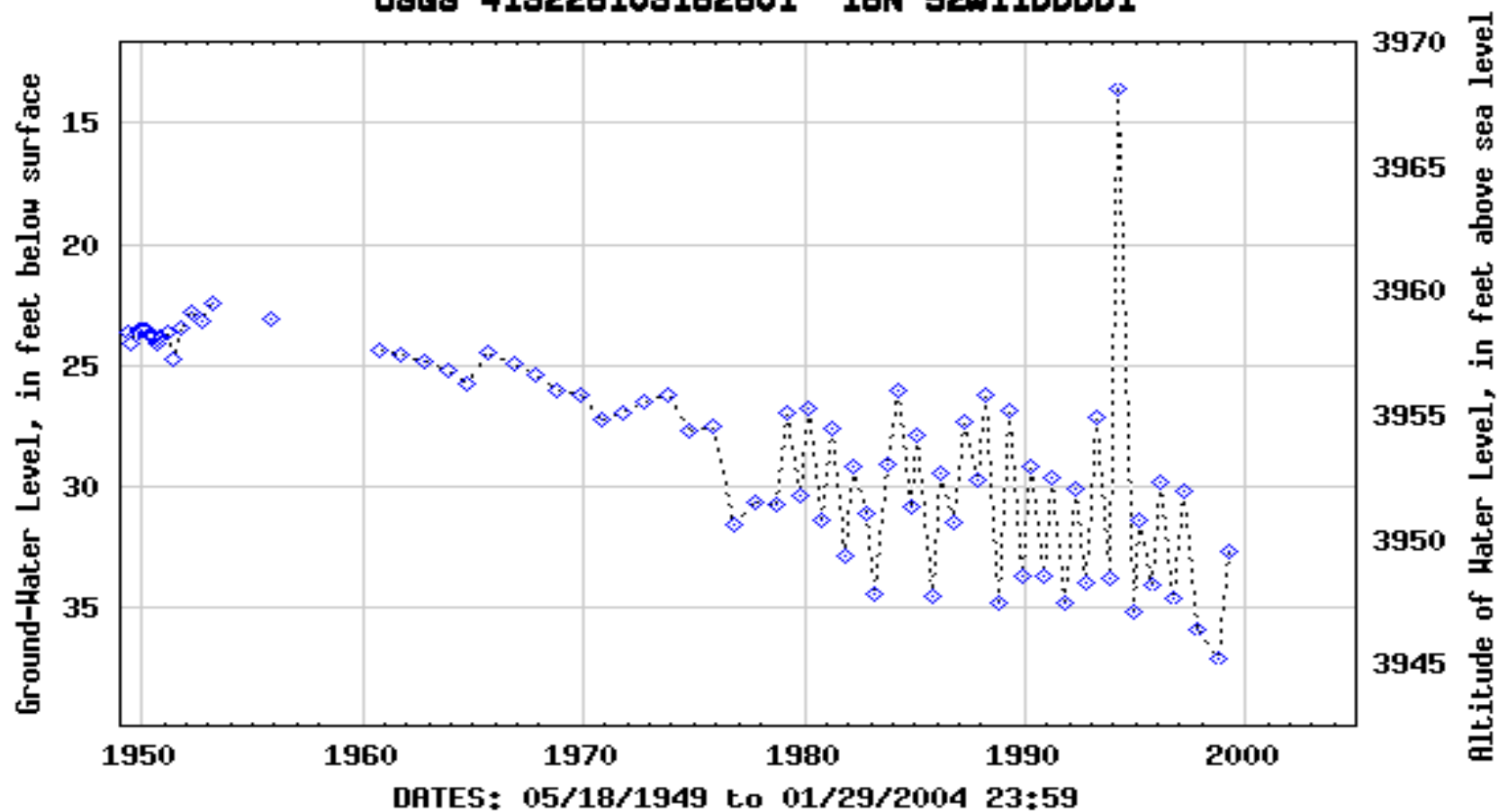
Sincerely,

Roger K. Patterson
Director

jjs
Enclosures



USGS 413228103162601 18N 52W11DDDD1

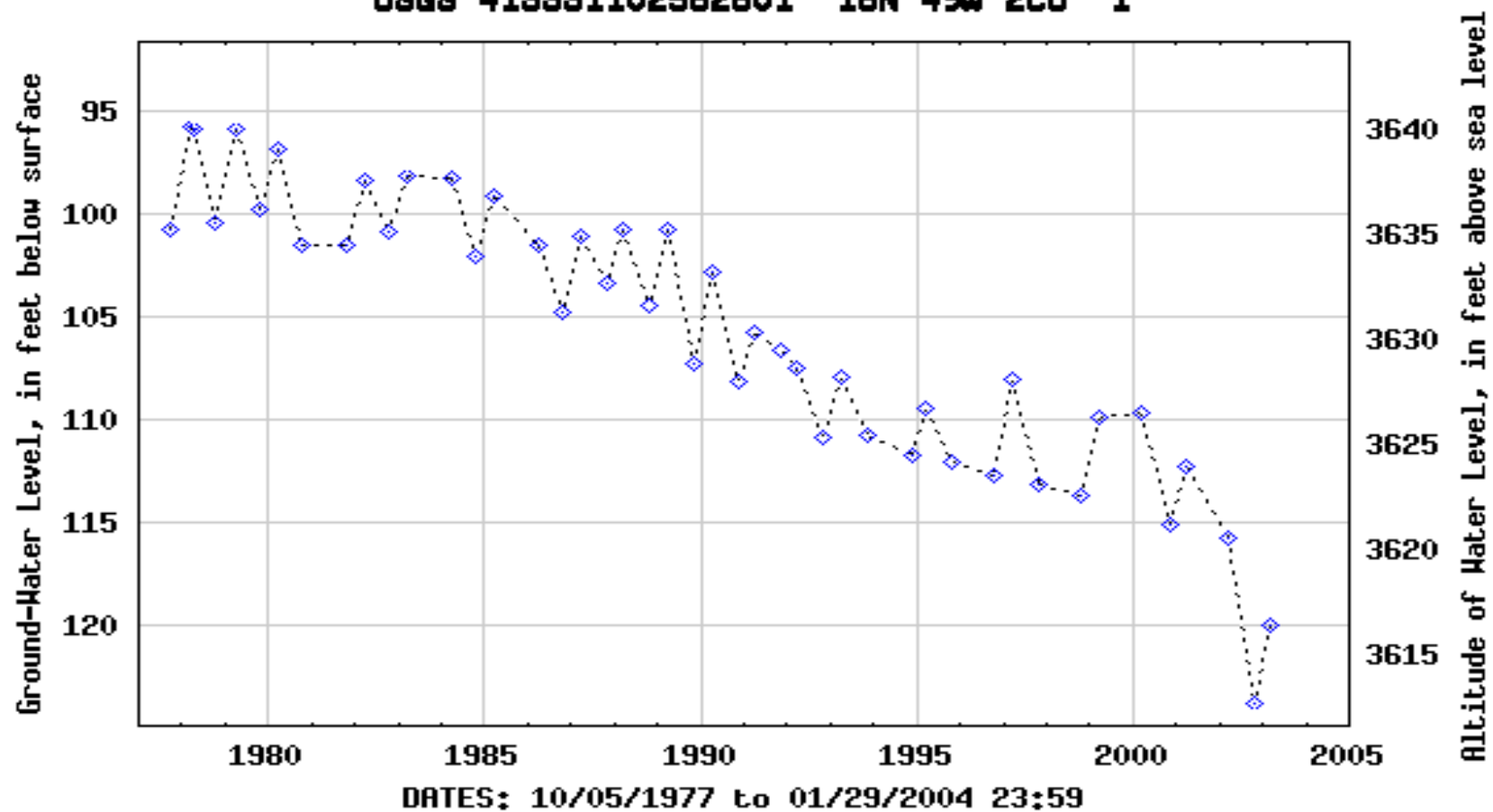


Provisional Data Subject to Revision

Figure 1



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Provisional Data Subject to Revision

Figure 2

North Platte NRD Registered Irrigation Wells

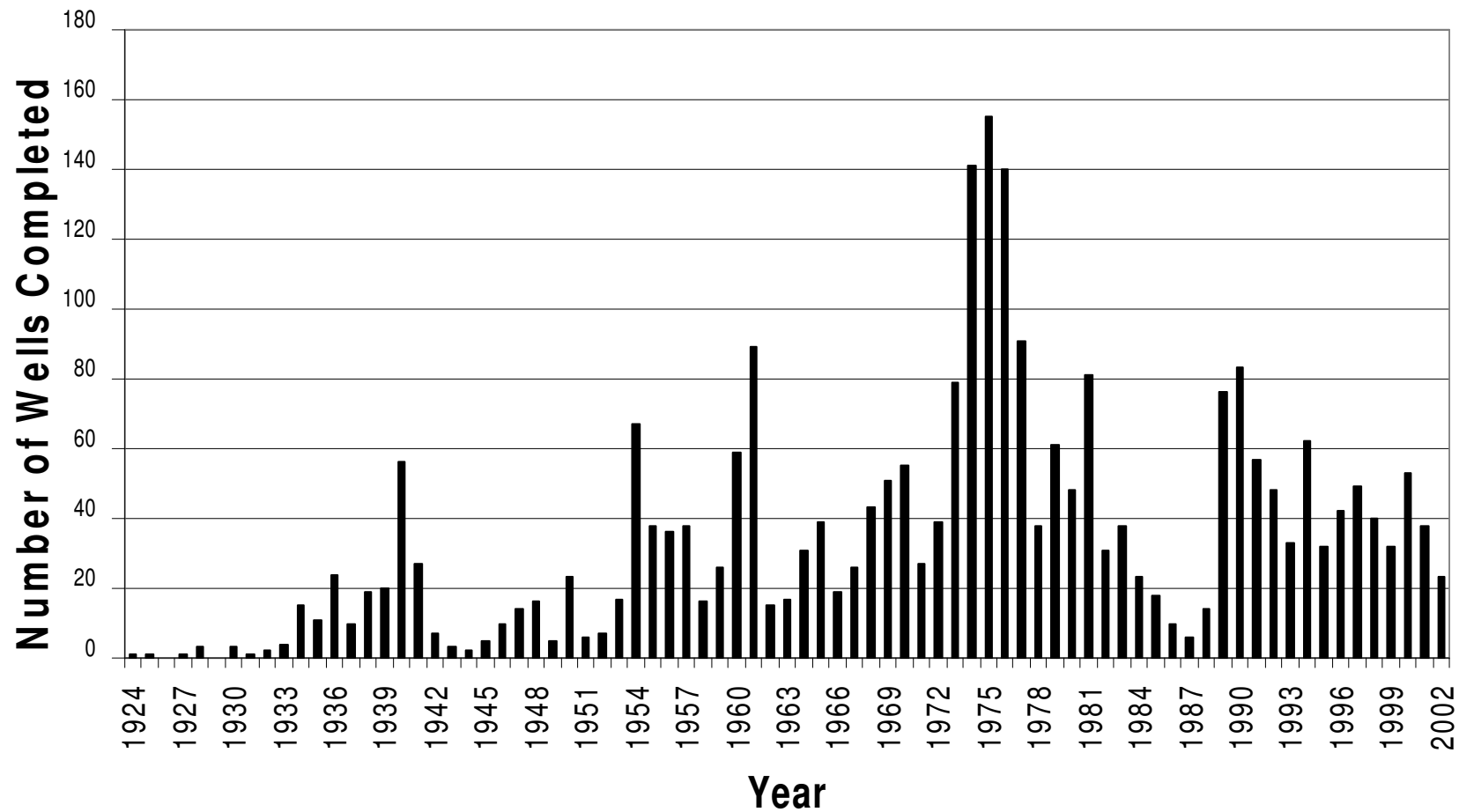
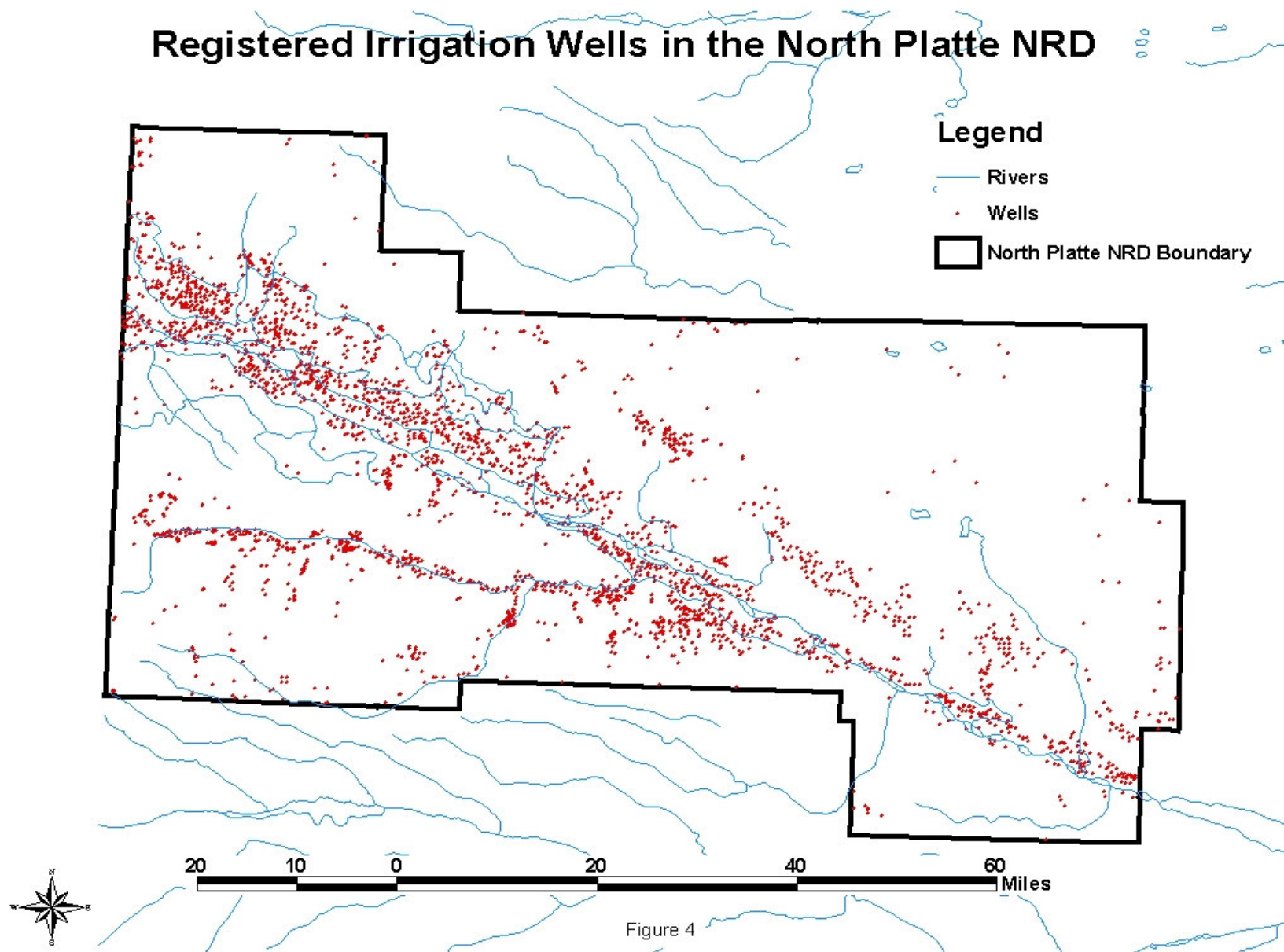


Figure 3

Registered Irrigation Wells in the North Platte NRD



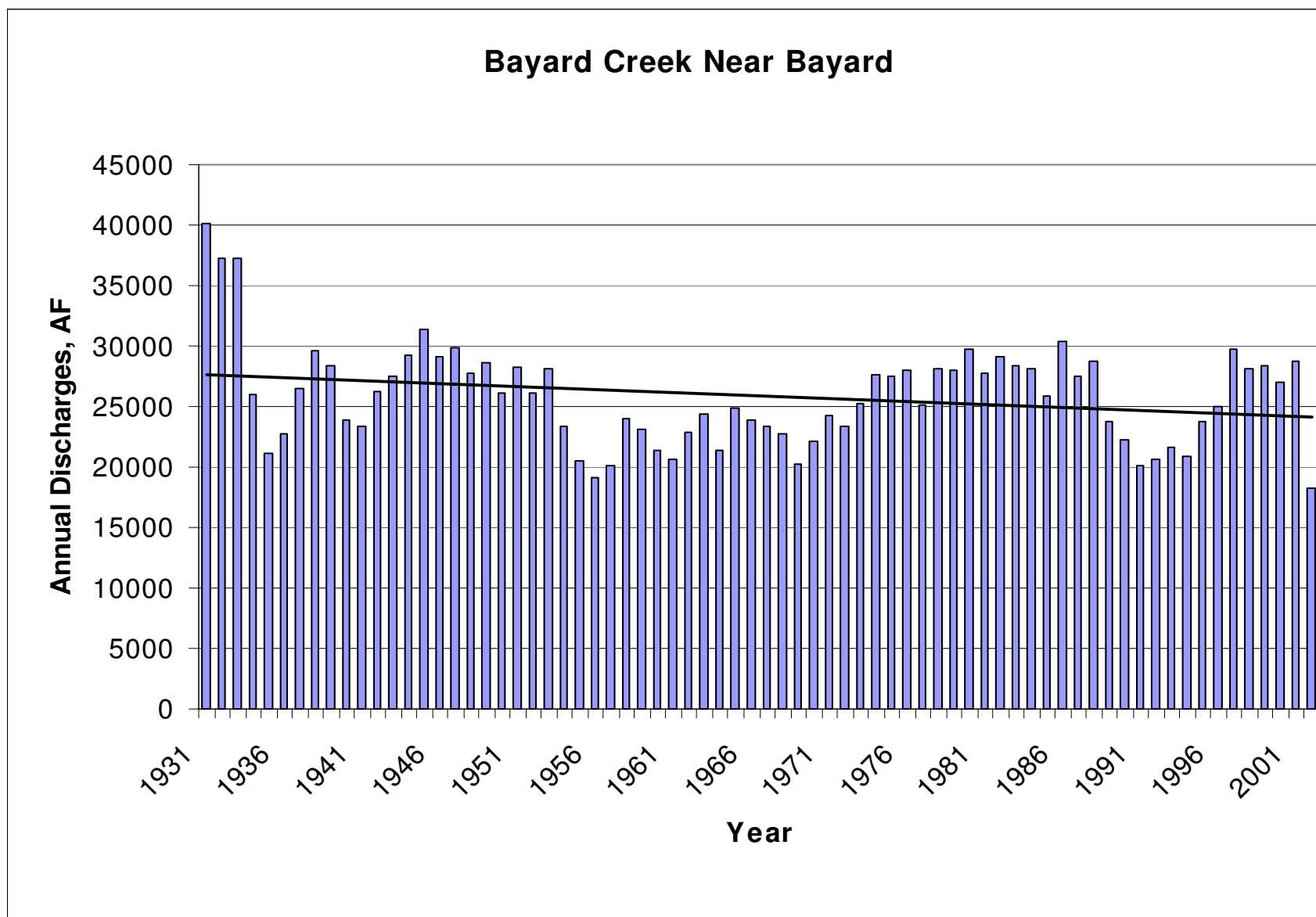


Figure 5

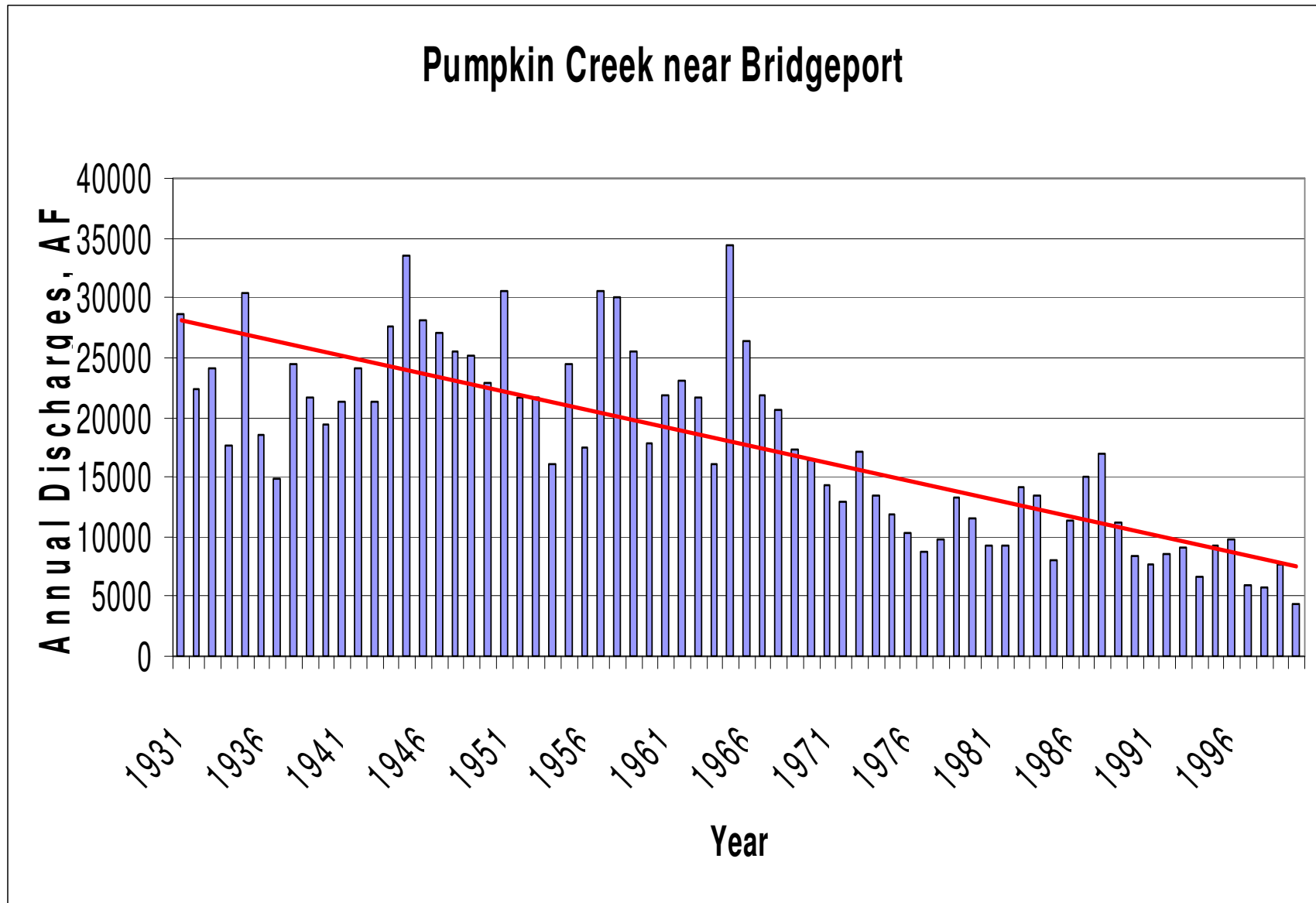


Figure 6

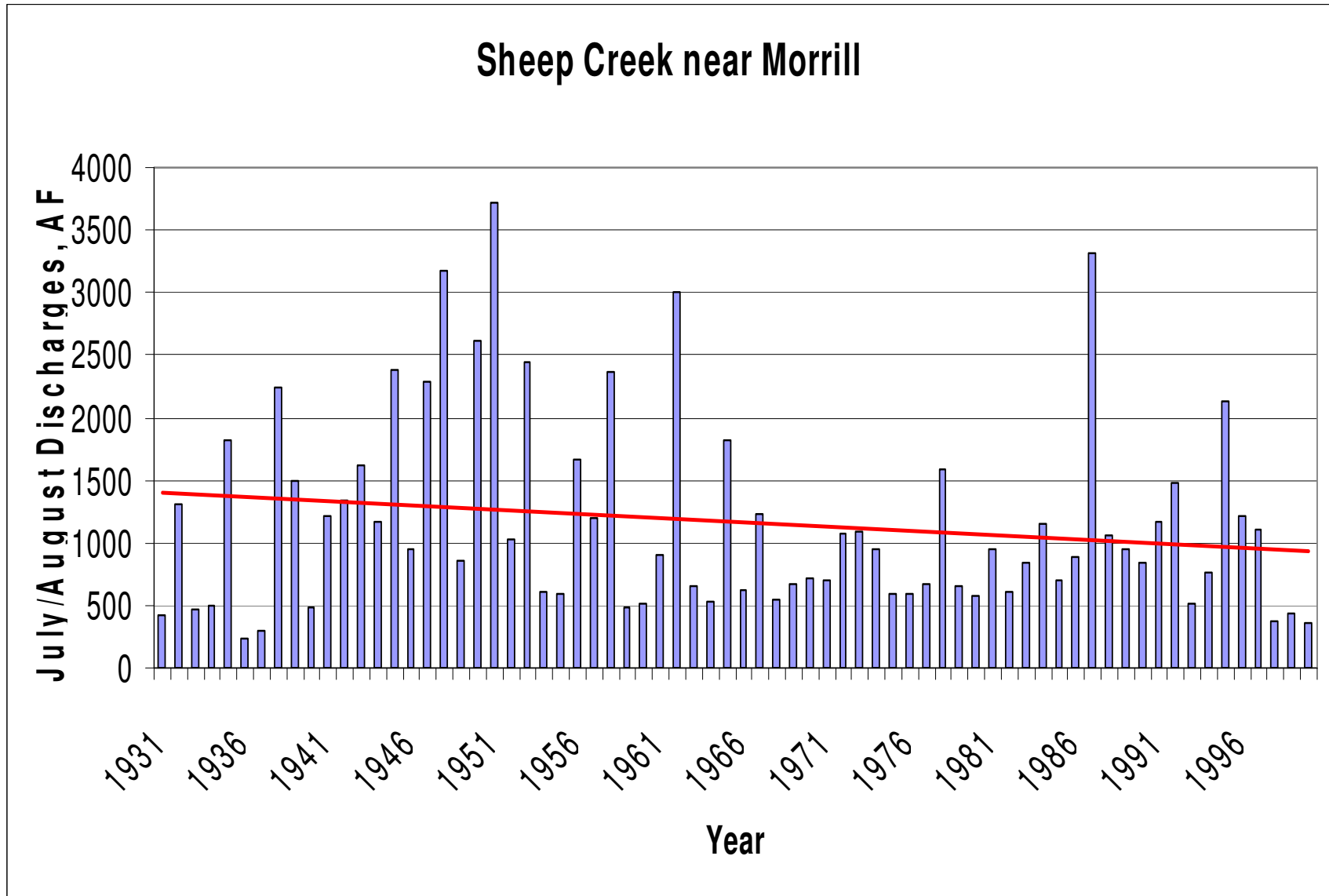


Figure 7

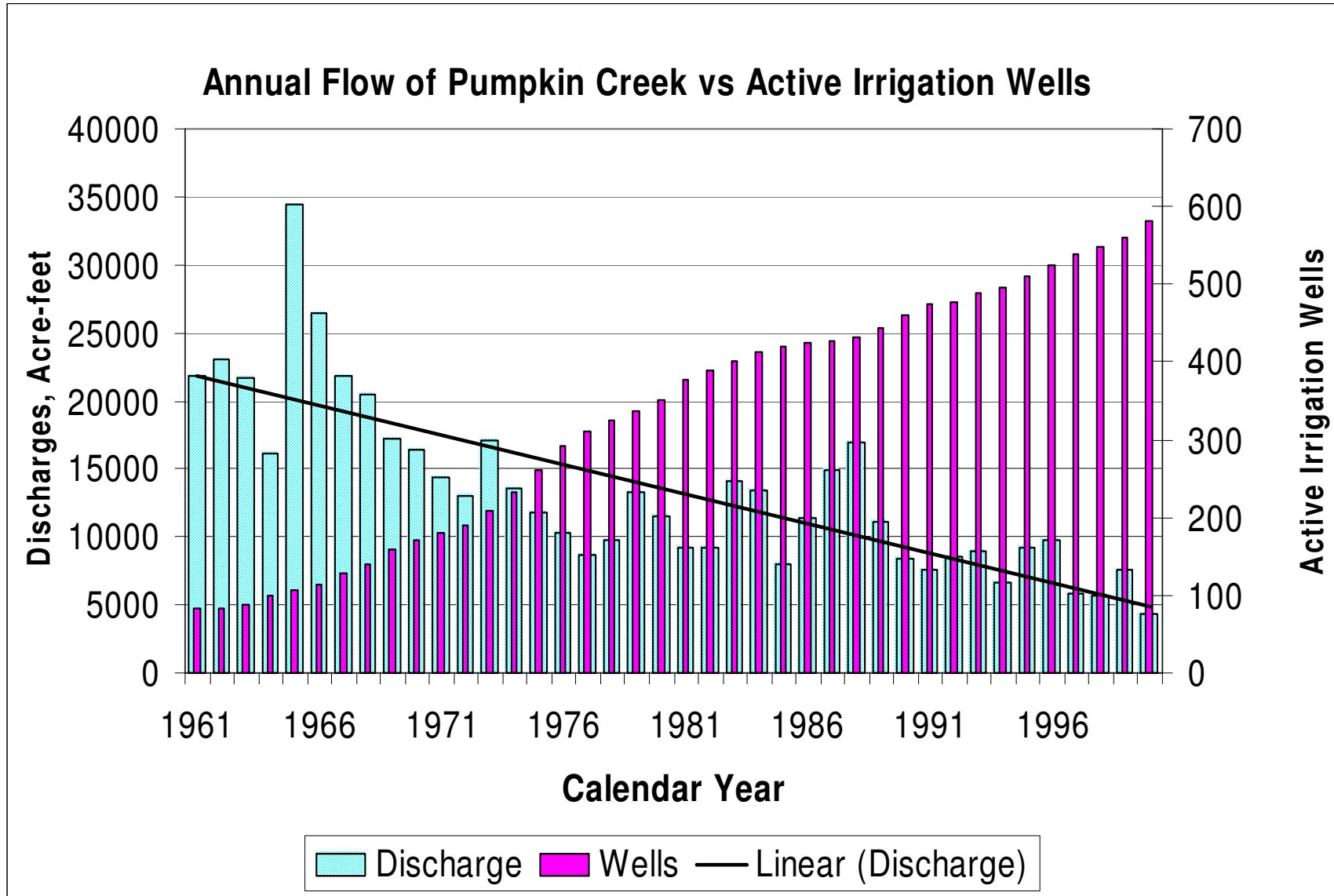


Figure 8